

Work Order ID 114515

Friday, March 07, 2014 9:19:45 AM

114515

Page 1

Item ID: D3391-023

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Mid Tube Assembly

Stop

NS2

Start Date: 3/7/2014 Start Qty: 1.00

1

Cust Item ID:

Required Date: 3/14/2014 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

*RF*Date: 4/03/14

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| Draw Nbr | Revision Nbr | | | | | | | | |
| D3391 | I | | | | | | | | |
| 100 | | 0.00 | | | | | | | |

100

Skidtubes

Memo

0.00

1-Cut tube to finish length as per Dwg D3391

2-Drill pilot holes using DT8796 (Do not drill "B" holes) and drill only 1 fwd saddle hole on one side only as per Dwg D3391

3-Open saddles and GHW holes to Ø0.375" except for fwd saddle hole of detail "J"

4-Remove .030" from Fwd indexing Ridge as per Dwg D3391

5-Remove indexing ridge on Fwd & Aft end of skidtube as per Dwg D3391

6-Deburr

7-Drill #30 pilot holes using wearplate Jig DT8217 Identify Ø0.250" holes with paint marker,

***DO NOT DRILL HOLES #3-19-20 FROM FWD END OF JIG

8-Open wearplate holes of D3391-023 assembly detail section G-G to Ø0.250" (10 holes) as per Dwg D3391

9-Open wearplate holes of D3391-023 assembly detail section H-H to Ø0.297" (20 holes) as per Dwg D3391

DO NOT OPEN 2 MOST FWD WEARPLATE HOLES

- DC 4/04/03

DQA: _____ Date: _____

Date:

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Date:

Work Order update only



| Work Order: _____ | | | DISPOSITION | | AGAINST DEPARTMENT/PROCESS | | | | | |
|---|------|------|---|---|------------------------------------|--|--------------------------------------|--------------|--------------|--|
| Part No. _____ | | | Rework <input type="checkbox"/> | Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | | | |
| NCR No. _____ | | | Scrap <input type="checkbox"/> | Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coor. <input type="checkbox"/> | Quality <input type="checkbox"/> | | | |
| | | | Use-as-is <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | | | |
| | | | Suspected Unapproved <input type="checkbox"/> | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | | | | |
| Root Cause | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector | |
| Design | | | | | | | | | | |
| Doc/Data | | | | | | | | | | |
| Equip/Tooling | | | | | | | | | | |
| Handling/Pre | | | | | | | | | | |
| Material | | | | | | | | | | |
| Operator | | | | | | | | | | |
| Offset/Setup | | | | | | | | | | |
| Process | | | | | | | | | | |
| Supplier | | | | | | | | | | |
| Training | | | | | | | | | | |
| Transport | | | | | | | | | | |
| Unapproved | | | | | | | | | | |
| FAULT CATEGORY | | | | | | | | | | |
| Landing Gear | | | | General | | | | | | |
| <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube | | | | <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function | | | | | | |
| | | | | <input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence | | | | | | |
| | | | | <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge | | | | | | |
| | | | | <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled | | | | | | |
| | | | | <input type="checkbox"/> Other | | | | | | |

Work Order ID 114515

Friday, March 07, 2014 9:19:45 AM

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Page 2

Item ID: D3391-023**Accept*****N900040100*****Setup Start*****NS1*****Revision ID:****Item Name:** Mid Tube Assembly**Stop*****NS2*****Start Date:** 3/7/2014 **Start Qty:** 1.00***1*****Cust Item ID:****Required Date:** 3/14/2014 **Req'd Qty:** 1.00***1*****Customer:****Reference:****Approvals:****Process Plan:****Date:****Tooling:****Date:****Run Start*****NR1*****QC:****Date:****SPC (Y/N):****Date:****Stop*****NR2*****Sequence ID/
Work Center ID****Operation
Description****Set Up/
Run Hours****Tool ID****Tool #****Plan
Code****Accept
Qty****Reject
Qty****Reject
Number****Insp.
Stamp**

10-Open .375" holes to .438" ***do not open fwd saddle holes***

11-Locate D3391-021 in D3391-023 at 9.00" (see view z-z)

12- Transfer drill one fwd saddle hole only to .188" dia, transfer drill all remaining fwd saddle holes using DT 8149 locating from previously drilled .188" dia hole, using t-pins and clicos to ensure perfect alignment, open up previously transferred pilot holes in D3391-023/-021 to 0.438" dia. in D3391-021
D3391-021 BATCH: 114256

13- Using DT8217, locating from two previously drilled holes, drill remaining wearplate holes into D3391-021.

14- Locating from two fwd wearplate holes in D3391-023 drill remaining 6 wearplate holes in D3391-021 using DT8937

15- Open 10 wearplate holes in D3391-021 to 0.297" dia.

16- insert D3391-021 into D3391-23

17- insert T-pins into first and third fwd saddle holes

18- ON FIRST SIDE ONLY drill out 2nd and forth fwd saddle holes to 0.500" as per

19- ON 2ND SIDE ONLY ream out 2nd and forth saddle hole to 0.499".

20-Deburr and blow out all chips from inside tube, scribe batch # in D3391-023 at aft end.


14-4-4

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

| | | | | | | | | | | |
|--|-------------|--------------------------|---------------|----------------------------|-----------|--------------------------|---------------------|--------------------------|-------------|--------------------------|
| Work Order: _____ Part No. _____ NCR No. _____ | DISPOSITION | | | AGAINST DEPARTMENT/PROCESS | | | | | | |
| | Rework | <input type="checkbox"/> | Skid-tube | <input type="checkbox"/> | Crosstube | <input type="checkbox"/> | Water Jet | <input type="checkbox"/> | Engineering | <input type="checkbox"/> |
| | Scrap | <input type="checkbox"/> | Machining | <input type="checkbox"/> | Small Fab | <input type="checkbox"/> | Prod. Eng. Coor. | <input type="checkbox"/> | Quality | <input type="checkbox"/> |
| | Use-as-is | <input type="checkbox"/> | Thermoforming | <input type="checkbox"/> | Finishing | <input type="checkbox"/> | Rec/Store/Packaging | <input type="checkbox"/> | Other | <input type="checkbox"/> |
| Suspected Unapproved | | | Large Fab | | | Supplier | | | | |

| Root Cause | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|---------------|------|------|-----|---|-------------------|--------------------|-------------|--------------|--------------|
| Design | | | | | | | | | |
| Doc/Data | | | | | | | | | |
| Equip/Tooling | | | | | | | | | |
| Handling/Pre | | | | | | | | | |
| Material | | | | | | | | | |
| Operator | | | | | | | | | |
| Offset/Setup | | | | | | | | | |
| Process | | | | | | | | | |
| Supplier | | | | | | | | | |
| Training | | | | | | | | | |
| Transport | | | | | | | | | |
| Unapproved | | | | | | | | | |

FAULT CATEGORY

| Landing Gear | General | | | |
|---|---|--|---|---|
| <input type="checkbox"/> Bending | <input type="checkbox"/> Bend | <input type="checkbox"/> Folio/Program | <input type="checkbox"/> Outside Dimensions | <input type="checkbox"/> Pressure/Forced |
| <input type="checkbox"/> Centre Not Concentric | <input type="checkbox"/> BOM/Route | <input type="checkbox"/> Grain | <input type="checkbox"/> Over/Under tolerance | <input type="checkbox"/> Set-up |
| <input type="checkbox"/> Cracks | <input type="checkbox"/> Brøken/Damage/Defect | <input type="checkbox"/> Hardware | <input type="checkbox"/> Part Incorrect | <input type="checkbox"/> Temperature/Cure |
| <input type="checkbox"/> Crimp/Kink/Ripple/Wave | <input type="checkbox"/> Burrs | <input type="checkbox"/> Inspection Incomplete/Unqualified | <input type="checkbox"/> Part Lost/Missing | <input type="checkbox"/> Weld |
| <input type="checkbox"/> Cuffs | <input type="checkbox"/> Contamination | <input type="checkbox"/> Instructions Incomplete/Unclear | <input type="checkbox"/> Part Moved | <input type="checkbox"/> Wrong Stock Pulled |
| <input type="checkbox"/> Crushing | <input type="checkbox"/> Countersink | <input type="checkbox"/> Misaligned/off center | <input type="checkbox"/> Positioned Wrong | <input type="checkbox"/> Other |
| <input type="checkbox"/> Heat Treat | <input type="checkbox"/> Cut Too Short | <input type="checkbox"/> Mislabeled | <input type="checkbox"/> Power Loss/Surge | |
| <input type="checkbox"/> Inspection Strip in Tube | <input type="checkbox"/> Drawing | <input type="checkbox"/> Misread | | |
| <input type="checkbox"/> Marks/Chatter | <input type="checkbox"/> Drill Holes | <input type="checkbox"/> Off-set | | |
| <input type="checkbox"/> Turning Sequence | <input type="checkbox"/> Finish | <input type="checkbox"/> Out of Calibration | | |
| <input type="checkbox"/> Wave/Twist in Tube | <input type="checkbox"/> Fit/Function | <input type="checkbox"/> Out of Sequence | | |

Work Order ID 114515

Friday, March 07, 2014 9:19:45 AM

114515

Page 3

Item ID: D3391-023

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Mid Tube Assembly

Stop

NS2

Start Date: 3/7/2014 Start Qty: 1.00

1

Cust Item ID:

Required Date: 3/14/2014 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

110

QC5- Inspect part completeness to step on W/O

0.00

110

QC

Quality Control

①

14-04-07

04S
9
888

120

Chemical Conversion Coat per QSI005 4.1

0.00

120

Hand Finish

Hand Finishing

Memo

0.00

①

14-4-7 Doc

130

QC7-Inspect Chemical Conversion Coat

0.00

130

QC

Quality Control

Memo

0.00

②

14-4-7

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

| | | | | | | | | | | |
|--|--------------------------|--------------------------|--------------------------|----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------|--------------------------|
| Work Order: _____ Part No. _____ NCR No. _____ | DISPOSITION | | | AGAINST DEPARTMENT/PROCESS | | | | | | |
| | Rework | <input type="checkbox"/> | Skid-tube | <input type="checkbox"/> | Crosstube | <input type="checkbox"/> | Water Jet | <input type="checkbox"/> | Engineering | <input type="checkbox"/> |
| | Scrap | <input type="checkbox"/> | Machining | <input type="checkbox"/> | Small Fab | <input type="checkbox"/> | Prod. Eng. Coor. | <input type="checkbox"/> | Quality | <input type="checkbox"/> |
| | Use-as-is | <input type="checkbox"/> | Thermoforming | <input type="checkbox"/> | Finishing | <input type="checkbox"/> | Rec/Store/Packaging | <input type="checkbox"/> | Other | <input type="checkbox"/> |
| Suspected Unapproved | <input type="checkbox"/> | Large Fab | <input type="checkbox"/> | Composite | <input type="checkbox"/> | Supplier | <input type="checkbox"/> | | | |

| Root Cause | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|---------------|------|------|-----|---|-------------------|--------------------|-------------|--------------|--------------|
| Design | | | | | | | | | |
| Doc/Data | | | | | | | | | |
| Equip/Tooling | | | | | | | | | |
| Handling/Pre | | | | | | | | | |
| Material | | | | | | | | | |
| Operator | | | | | | | | | |
| Offset/Setup | | | | | | | | | |
| Process | | | | | | | | | |
| Supplier | | | | | | | | | |
| Training | | | | | | | | | |
| Transport | | | | | | | | | |
| Unapproved | | | | | | | | | |

FAULT CATEGORY

| Landing Gear | General | | | | | | | | |
|---|---|--|---|---|--|--|--|--|--|
| <input type="checkbox"/> Bending | <input type="checkbox"/> Bend | <input type="checkbox"/> Folio/Program | <input type="checkbox"/> Outside Dimensions | <input type="checkbox"/> Pressure/Forced | | | | | |
| <input type="checkbox"/> Centre Not Concentric | <input type="checkbox"/> BOM/Route | <input type="checkbox"/> Grain | <input type="checkbox"/> Over/Under tolerance | <input type="checkbox"/> Set-up | | | | | |
| <input type="checkbox"/> Cracks | <input type="checkbox"/> Broken/Damage/Defect | <input type="checkbox"/> Hardware | <input type="checkbox"/> Part Incorrect | <input type="checkbox"/> Temperature/Cure | | | | | |
| <input type="checkbox"/> Crimp/Kink/Ripple/Wave | <input type="checkbox"/> Burrs | <input type="checkbox"/> Inspection Incomplete/Unqualified | <input type="checkbox"/> Part Lost/Missing | <input type="checkbox"/> Weld | | | | | |
| <input type="checkbox"/> Cuffs | <input type="checkbox"/> Contamination | <input type="checkbox"/> Instructions Incomplete/Unclear | <input type="checkbox"/> Part Moved | <input type="checkbox"/> Wrong Stock Pulled | | | | | |
| <input type="checkbox"/> Crushing | <input type="checkbox"/> Countersink | <input type="checkbox"/> Misaligned/off center | <input type="checkbox"/> Positioned Wrong | <input type="checkbox"/> Other | | | | | |
| <input type="checkbox"/> Heat Treat | <input type="checkbox"/> Cut Too Short | <input type="checkbox"/> Mislabeled | <input type="checkbox"/> Power Loss/Surge | | | | | | |
| <input type="checkbox"/> Inspection Strip in Tube | <input type="checkbox"/> Drawing | <input type="checkbox"/> Misread | | | | | | | |
| <input type="checkbox"/> Marks/Chatter | <input type="checkbox"/> Drill Holes | <input type="checkbox"/> Off-set | | | | | | | |
| <input type="checkbox"/> Turning Sequence | <input type="checkbox"/> Finish | <input type="checkbox"/> Out of Calibration | | | | | | | |
| <input type="checkbox"/> Wave/Twist in Tube | <input type="checkbox"/> Fit/Function | <input type="checkbox"/> Out of Sequence | | | | | | | |

Work Order ID 114515

Friday, March 07, 2014 9:19:45 AM

114515

Page 4

Item ID: D3391-023

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Mid Tube Assembly

Stop

NS2

Start Date: 3/7/2014 Start Qty: 1.00

1

Cust Item ID:

Required Date: 3/14/2014 Req'd Qty: 1.00

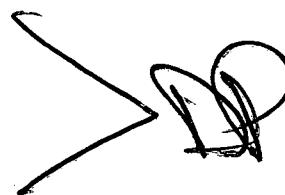
1

Customer:

Reference:

| | | | | | | | |
|------------|---------------|-------|------------|-------|-----|-------|--------------|
| Approvals: | Process Plan: | Date: | Tooling: | Date: | Run | Start | *NR1* |
| | | | | | | Stop | *NR2* |
| | QC: | Date: | SPC (Y/N): | Date: | | | |

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 140 | Skidtubes | 0.00 | | | | | | | |
| *140* | Skidtubes | 0.00 | | | | | | | |
| | Memo | | | | | | | | |
| | 1-Open float bag holes as per dwg 2-Csink float bag holes as per dwg 3- Prepare tube for welding 4-Bond web in place as per Dwg D3391 & QSI 015. Adhere for 12 hours) A/R Sikaflex exp: <u>14-10-9</u> batch#: <u>128026</u> | | | | | | | | |
| | NOTE:ENSURE WEB IS INSERTED IN AFT END OF TUBE | | | | | | | | |
| 150 | QC5- Inspect part completeness to step on W/O | 0.00 | | | | | | | |
| *150* | QC | 0.00 | | | | | | | |
| | Memo | | | | | | | | |
| Quality Control | | | | | | | | | |

DAS
18
000

 14-4-7

1 Ø 14-04-08

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____

Date: _____

Work Order update only

| | | | | | | | | | |
|-------------------|---|--|------------------------------------|--|--------------------------------------|--|--|--|--|
| Work Order: _____ | DISPOSITION | AGAINST DEPARTMENT/PROCESS | | | | | | | |
| Part No. _____ | Rework <input type="checkbox"/> | Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | | | | |
| NCR No. _____ | Scrap <input type="checkbox"/> | Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coor. <input type="checkbox"/> | Quality <input type="checkbox"/> | | | | |
| | Use-as-is <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | | | | |
| | Suspected Unapproved <input type="checkbox"/> | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | | | | | |

| Root Cause | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|---------------|------|------|-----|---|-------------------|--------------------|-------------|--------------|--------------|
| Design | | | | | | | | | |
| Doc/Data | | | | | | | | | |
| Equip/Tooling | | | | | | | | | |
| Handling/Pre | | | | | | | | | |
| Material | | | | | | | | | |
| Operator | | | | | | | | | |
| Offset/Setup | | | | | | | | | |
| Process | | | | | | | | | |
| Supplier | | | | | | | | | |
| Training | | | | | | | | | |
| Transport | | | | | | | | | |
| Unapproved | | | | | | | | | |

FAULT CATEGORY

| Landing Gear | General | | |
|---|---|--|---|
| <input type="checkbox"/> Bending | <input type="checkbox"/> Bend | <input type="checkbox"/> Folio/Program | <input type="checkbox"/> Outside Dimensions |
| <input type="checkbox"/> Centre Not Concentric | <input type="checkbox"/> BOM/Route | <input type="checkbox"/> Grain | <input type="checkbox"/> Pressure/Forced |
| <input type="checkbox"/> Cracks | <input type="checkbox"/> Broken/Damage/Defect | <input type="checkbox"/> Hardware | <input type="checkbox"/> Set-up |
| <input type="checkbox"/> Crimp/Kink/Ripple/Wave | <input type="checkbox"/> Burrs | <input type="checkbox"/> Inspection Incomplete/Unqualified | <input type="checkbox"/> Temperature/Cure |
| <input type="checkbox"/> Cuffs | <input type="checkbox"/> Contamination | <input type="checkbox"/> Instructions Incomplete/Unclear | <input type="checkbox"/> Weld |
| <input type="checkbox"/> Crushing | <input type="checkbox"/> Countersink | <input type="checkbox"/> Misaligned/off center | <input type="checkbox"/> Wrong Stock Pulled |
| <input type="checkbox"/> Heat Treat | <input type="checkbox"/> Cut Too Short | <input type="checkbox"/> Mislabeled | <input type="checkbox"/> Other |
| <input type="checkbox"/> Inspection Strip in Tube | <input type="checkbox"/> Drawing | <input type="checkbox"/> Misread | |
| <input type="checkbox"/> Marks/Chatter | <input type="checkbox"/> Drill Holes | <input type="checkbox"/> Off-set | |
| <input type="checkbox"/> Turning Sequence | <input type="checkbox"/> Finish | <input type="checkbox"/> Out of Calibration | |
| <input type="checkbox"/> Wave/Twist in Tube | <input type="checkbox"/> Fit/Function | <input type="checkbox"/> Out of Sequence | |

Work Order ID 114515

114515

Page 5

Friday, March 07, 2014 10:22:27 AM

Item ID: D3391-023 Accept *N900040100* Setup Start *NS1*
Revision ID:
Item Name: Mid Tube Assembly Stop *NS2*
Start Date: 3/7/2014 Start Qty: 1.00 *1* Cust Item ID:
Required Date: 3/14/2014 Req'd Qty: 1.00 *1* Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NB2*

Work Order ID 114515

Friday, March 07, 2014 9:19:45 AM

114515

Page 6

Item ID: D3391-023

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Mid Tube Assembly

Stop

NS2

Start Date: 3/7/2014 Start Qty: 1.00

1

Cust Item ID:

Required Date: 3/14/2014 Req'd Qty: 1.00

1

Customer:

Reference:

| | | | | | | | |
|------------|---------------|-------|------------|-------|-----|-------|--------------|
| Approvals: | Process Plan: | Date: | Tooling: | Date: | Run | Start | *NR1* |
| | | | | | | Stop | *NR2* |
| | QC: | Date: | SPC (Y/N): | Date: | | | |

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 185 | Pressure Wash per QSI005 4.3 | 0.00 | | | | | | | |

185

HandFinish

Hand Finishing

Memo

0.00

1 26/144-10

190

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

11/128959.***190***

Powdercoat

Powder Coating

Memo

0.00

START TIME: 2:10OVEN TEMPERATURE: 320°FINISH TIME: 3:40.1 4 14-716. DAS 34 9-89

200

QC3- Inspect Part Finish

0.00

200

QC

Quality Control

Memo

0.00

1 4 14-0717 DAS 15 9-89

DQA: _____

Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____

Date: _____

Work Order update only

| | | | |
|-------------------|--|---|--|
| Work Order: _____ | DISPOSITION <input type="checkbox"/> Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved | AGAINST DEPARTMENT/PROCESS <input type="checkbox"/> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier | <input type="checkbox"/> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other |
| Part No. _____ | | | |
| NCR No. _____ | | | |

| Root Cause | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|---------------|------|------|-----|---|-------------------|--------------------|-------------|--------------|--------------|
| Design | | | | | | | | | |
| Doc/Data | | | | | | | | | |
| Equip/Tooling | | | | | | | | | |
| Handling/Pre | | | | | | | | | |
| Material | | | | | | | | | |
| Operator | | | | | | | | | |
| Offset/Setup | | | | | | | | | |
| Process | | | | | | | | | |
| Supplier | | | | | | | | | |
| Training | | | | | | | | | |
| Transport | | | | | | | | | |
| Unapproved | | | | | | | | | |

FAULT CATEGORY

| | | | | | |
|--|---|--|--|--|--|
| Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube | General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function | | | | |
| | <input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence | | | | |
| | <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge | | | | |
| | <input type="checkbox"/> Pressure/Forced Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled | | | | |
| | <input type="checkbox"/> Other | | | | |
| | | | | | |
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| | | | | | |

Work Order ID 114515

Friday, March 07, 2014 9:19:45 AM

114515

Page 7

Item ID: D3391-023**Accept*****N900040100*****Setup*****NS1*****Revision ID:****Item Name:** Mid Tube Assembly**Start*****NS2*****Start Date:** 3/7/2014 **Start Qty:** 1.00***1*****Cust Item ID:****Required Date:** 3/14/2014 **Req'd Qty:** 1.00***1*****Customer:****Reference:****Approvals:****Process Plan:** _____**Date:** _____**Tooling:** _____**Date:** _____**Run****Start*****NR1*****QC:** _____**Date:** _____**SPC (Y/N):** _____**Date:** _____**Stop*****NR2*****Sequence ID/
Work Center ID**

230

230

HandFinish

Hand Finishing

**Operation
Description****Set Up/
Run Hours****Tool ID****Tool #****Plan
Code****Accept
Qty****Reject
Qty****Reject
Number****Insp.
Stamp**

0.00

HandFinishing

0.00

*1x d 40 11/17***Memo**

1- press fit D3591-1 spacers using DT9416 starting from 0.500" side

2-Install Inserts as per Dwg

240

240

QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

DAS
27
9-89*MH18*

250

250

Packaging

Packaging

Identify as per dwg & Stock Location: w10

0.00

D412-742-043 / B114138

*1x d 40 14/07/17***Memo**

0.00

DQA: _____ Date: _____

Date:

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Date:

Work Order update only



| Work Order: _____ | | | DISPOSITION | | AGAINST DEPARTMENT/PROCESS | | | | | |
|---|------|------|---|---|------------------------------------|--|--------------------------------------|--------------|--------------|--|
| | | | Rework <input type="checkbox"/> | Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | | | |
| | | | Scrap <input type="checkbox"/> | Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coor. <input type="checkbox"/> | Quality <input type="checkbox"/> | | | |
| | | | Use-as-is <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | | | |
| | | | Suspected Unapproved <input type="checkbox"/> | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | | | | |
| Root Cause | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector | |
| Design | | | | | | | | | | |
| Doc/Data | | | | | | | | | | |
| Equip/Tooling | | | | | | | | | | |
| Handling/Pre | | | | | | | | | | |
| Material | | | | | | | | | | |
| Operator | | | | | | | | | | |
| Offset/Setup | | | | | | | | | | |
| Process | | | | | | | | | | |
| Supplier | | | | | | | | | | |
| Training | | | | | | | | | | |
| Transport | | | | | | | | | | |
| Unapproved | | | | | | | | | | |
| FAULT CATEGORY | | | | | | | | | | |
| Landing Gear | | | | General | | | | | | |
| <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube | | | | <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function | | | | | | |
| | | | | <input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence | | | | | | |
| | | | | <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge | | | | | | |
| | | | | <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled | | | | | | |
| | | | | <input type="checkbox"/> Other | | | | | | |

Work Order ID 114515

Friday, March 07, 2014 9:19:45 AM

114515

Page 8

Item ID: D3391-023

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Mid Tube Assembly

Stop

NS2

Start Date: 3/7/2014 Start Qty: 1.00

1

Cust Item ID:

Required Date: 3/14/2014 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
Description

260

QC21- Final Inspection - Work Order Release

Set Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp***260***

QC

Quality Control

0.00

Memos

0.00

14/7/21 28



DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

| | | | | | | | |
|-------------------|---|--|------------------------------------|--|--------------------------------------|--|--|
| Work Order: _____ | DISPOSITION | AGAINST DEPARTMENT/PROCESS | | | | | |
| Part No. _____ | Rework <input type="checkbox"/> | Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | | |
| NCR No. _____ | Scrap <input type="checkbox"/> | Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coor. <input type="checkbox"/> | Quality <input type="checkbox"/> | | |
| | Use-as-is <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | | |
| | Suspected Unapproved <input type="checkbox"/> | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | | | |

| Root Cause | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|---------------|------|------|-----|---|-------------------|--------------------|-------------|--------------|--------------|
| Design | | | | | | | | | |
| Doc/Data | | | | | | | | | |
| Equip/Tooling | | | | | | | | | |
| Handling/Pre | | | | | | | | | |
| Material | | | | | | | | | |
| Operator | | | | | | | | | |
| Offset/Setup | | | | | | | | | |
| Process | | | | | | | | | |
| Supplier | | | | | | | | | |
| Training | | | | | | | | | |
| Transport | | | | | | | | | |
| Unapproved | | | | | | | | | |

FAULT CATEGORY

| Landing Gear | General | | |
|--------------------------|---|--|---|
| Bending | Bend <input type="checkbox"/> | Folio/Program <input type="checkbox"/> | Outside Dimensions <input type="checkbox"/> |
| Centre Not Concentric | BOM/Route <input type="checkbox"/> | Grain <input type="checkbox"/> | Over/Under tolerance <input type="checkbox"/> |
| Cracks | Broken/Damage/Defect <input type="checkbox"/> | Hardware <input type="checkbox"/> | Part Incorrect <input type="checkbox"/> |
| Crimp/Kink/Ripple/Wave | Burrs <input type="checkbox"/> | Inspection Incomplete/Unqualified <input type="checkbox"/> | Part Lost/Missing <input type="checkbox"/> |
| Cuffs | Contamination <input type="checkbox"/> | Instructions Incomplete/Unclear <input type="checkbox"/> | Part Moved <input type="checkbox"/> |
| Crushing | Countersink <input type="checkbox"/> | Misaligned/off center <input type="checkbox"/> | Positioned Wrong <input type="checkbox"/> |
| Heat Treat | Cut Too Short <input type="checkbox"/> | Mislabeled <input type="checkbox"/> | Power Loss/Surge <input type="checkbox"/> |
| Inspection Strip in Tube | Drawing <input type="checkbox"/> | Misread <input type="checkbox"/> | Other <input type="checkbox"/> |
| Marks/Chatter | Drill Holes <input type="checkbox"/> | Off-set <input type="checkbox"/> | |
| Turning Sequence | Finish <input type="checkbox"/> | Out of Calibration <input type="checkbox"/> | |
| Wave/Twist in Tube | Fit/Function <input type="checkbox"/> | Out of Sequence <input type="checkbox"/> | |

Picklist Print

Friday, March 07, 2014 9:19:50 AM

Page 1

Work Order ID: 114515

114515
D3391-023

Parent Item: D3391-023

Parent Item Name: Mid Tube Assembly

Start Date: 3/7/2014

Required Date: 3/14/2014

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP A05.10.20 New Issue KJ/EC
 IPP B06.02.10 ECN773 dwg rev.D EC
 IPP C 07.03.20 rev F dwg EC
 IPP D 07.03.28 re-format EC
 IPP E 07.10.31 ecn 1053P EC
 IPP Rev:F ECN 1056 07-11-13 DD verified by: EC
 IPP Rev:G 08-09-08 new process (ecn 08-510) DD verified by:EC
 IPP Rev:H 08-09-10 revH as per dwg DD verified by:EC
 IPP Rev: I 08-11-13 Removed steps per w/o, QC KJ verified by: ec IPP
 Rev:J add in seq 140 expire date &# sikaflex DD 10.02.17 verified by:EC

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| D2500-1-100 | | Manufactured | No | | | 100 | Each | 85.0000 | 1 | 1 | | DC14/04/03 | ** |

D2500-1-100

Skidtube Extrusion

| Location | Loc Qty | Loc Code |
|----------|---------|----------|
| HALL | 85 | |
| 82373 | 24 | |
| 86065 | 61 | |

D3389-1

D3389-1

Web

| Location | Loc Qty | Loc Code |
|----------|---------|----------|
| LG | 9 | |
| 113057 | 9 | |

D3681-1

D3681-1

Spacer

| Location | Loc Qty | Loc Code |
|----------|---------|----------|
| LG001 | 176 | |
| 108647 | 40 | |
| 109109 | 136 | |

DC14/04/03

1

**

1

DC14/04/03

**

1

DC14/04/03

**

5

DC14/04/03

5

DC14/04/03

5

BE14/04/08

B114884 x 6

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____

Date: _____

Work Order update only

| | | | | | | | | | |
|-------------------|---|--|------------------------------------|--|--------------------------------------|--|--|--|--|
| Work Order: _____ | DISPOSITION | AGAINST DEPARTMENT/PROCESS | | | | | | | |
| Part No. _____ | Rework <input type="checkbox"/> | Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | | | | |
| NCR No. _____ | Scrap <input type="checkbox"/> | Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coor. <input type="checkbox"/> | Quality <input type="checkbox"/> | | | | |
| | Use-as-is <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | | | | |
| | Suspected Unapproved <input type="checkbox"/> | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | | | | | |

| Root Cause | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|---------------|------|------|-----|---|-------------------|--------------------|-------------|--------------|--------------|
| Design | | | | | | | | | |
| Doc/Data | | | | | | | | | |
| Equip/Tooling | | | | | | | | | |
| Handling/Pre | | | | | | | | | |
| Material | | | | | | | | | |
| Operator | | | | | | | | | |
| Offset/Setup | | | | | | | | | |
| Process | | | | | | | | | |
| Supplier | | | | | | | | | |
| Training | | | | | | | | | |
| Transport | | | | | | | | | |
| Unapproved | | | | | | | | | |

FAULT CATEGORY

| Landing Gear | General | Folio/Program | Outside Dimensions | Pressure/Forced |
|--------------------------|---|--|---|---|
| Bending | Bend <input type="checkbox"/> | Grain <input type="checkbox"/> | Over/Under tolerance <input type="checkbox"/> | Set-up <input type="checkbox"/> |
| Centre Not Concentric | BOM/Route <input type="checkbox"/> | Hardware <input type="checkbox"/> | Part Incorrect <input type="checkbox"/> | Temperature/Cure <input type="checkbox"/> |
| Cracks | Broken/Damage/Defect <input type="checkbox"/> | Inspection Incomplete/Unqualified <input type="checkbox"/> | Part Lost/Missing <input type="checkbox"/> | Weld <input type="checkbox"/> |
| Crimp/Kink/Ripple/Wave | Burrs <input type="checkbox"/> | Instructions Incomplete/Unclear <input type="checkbox"/> | Part Moved <input type="checkbox"/> | Wrong Stock Pulled <input type="checkbox"/> |
| Cuffs | Contamination <input type="checkbox"/> | Misaligned/off center <input type="checkbox"/> | Positioned Wrong <input type="checkbox"/> | |
| Crushing | Countersink <input type="checkbox"/> | Mislabeled <input type="checkbox"/> | Power Loss/Surge <input type="checkbox"/> | |
| Heat Treat | Cut Too Short <input type="checkbox"/> | Misread <input type="checkbox"/> | | |
| Inspection Strip in Tube | Drawing <input type="checkbox"/> | Off-set <input type="checkbox"/> | | |
| Marks/Chatter | Drill Holes <input type="checkbox"/> | Out of Calibration <input type="checkbox"/> | | |
| Turning Sequence | Finish <input type="checkbox"/> | Out of Sequence <input type="checkbox"/> | | |
| Wave/Twist in Tube | Fit/Function <input type="checkbox"/> | | | |

Picklist Print

Friday, March 07, 2014 9:19:50 AM

Page 2

Work Order ID: 114515

114515
D3391-023

Parent Item: D3391-023

Parent Item Name: Mid Tube Assembly

Start Date: 3/7/2014

Required Date: 3/14/2014

Start Qty: 1.00

Start Qty: 1.00

Required Qty: 1.00

D3591-1

Manufactured Net

Each 90,000

D3591-1

Bushing

| <u>Location</u> | <u>Loc Qty</u> | <u>Loc Code</u> |
|-----------------|----------------|-----------------|
| FG | 10 | 13121446 |
| | 92873 | |
| FP001 | 80 | |
| | 100699 | 5 |
| | 107918 | 38 |
| | 109107 | 37 |

ALS4-1032-130 AEALS4-1032-130 Purchased No

AI S4-1032-130

Rivnut

230 Each 1,136.000 20

20

26 11/07/17

| <u>Location</u> | <u>Loc Qty</u> | <u>Loc Code</u> |
|-----------------|----------------|-----------------|
| ST279 | 1079 | |
| | 122 | |
| M128211 | 957 | |
| st510 | 57 | M128649 |
| M126109 | 57 | |

Friday, March 07, 2014 9:19:50 AM

Shop Packet Print

Page 2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____

Date: _____

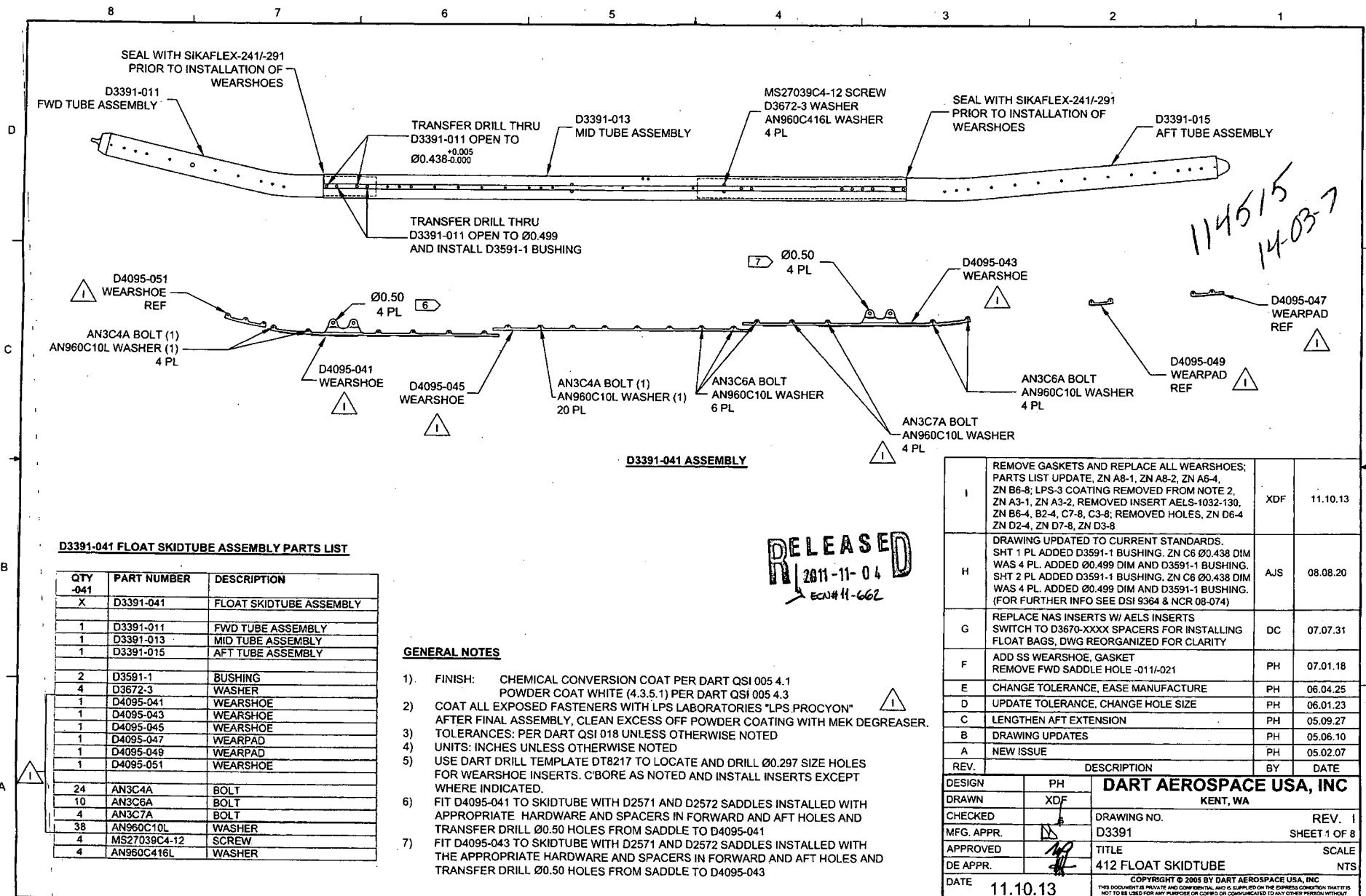
Work Order update only

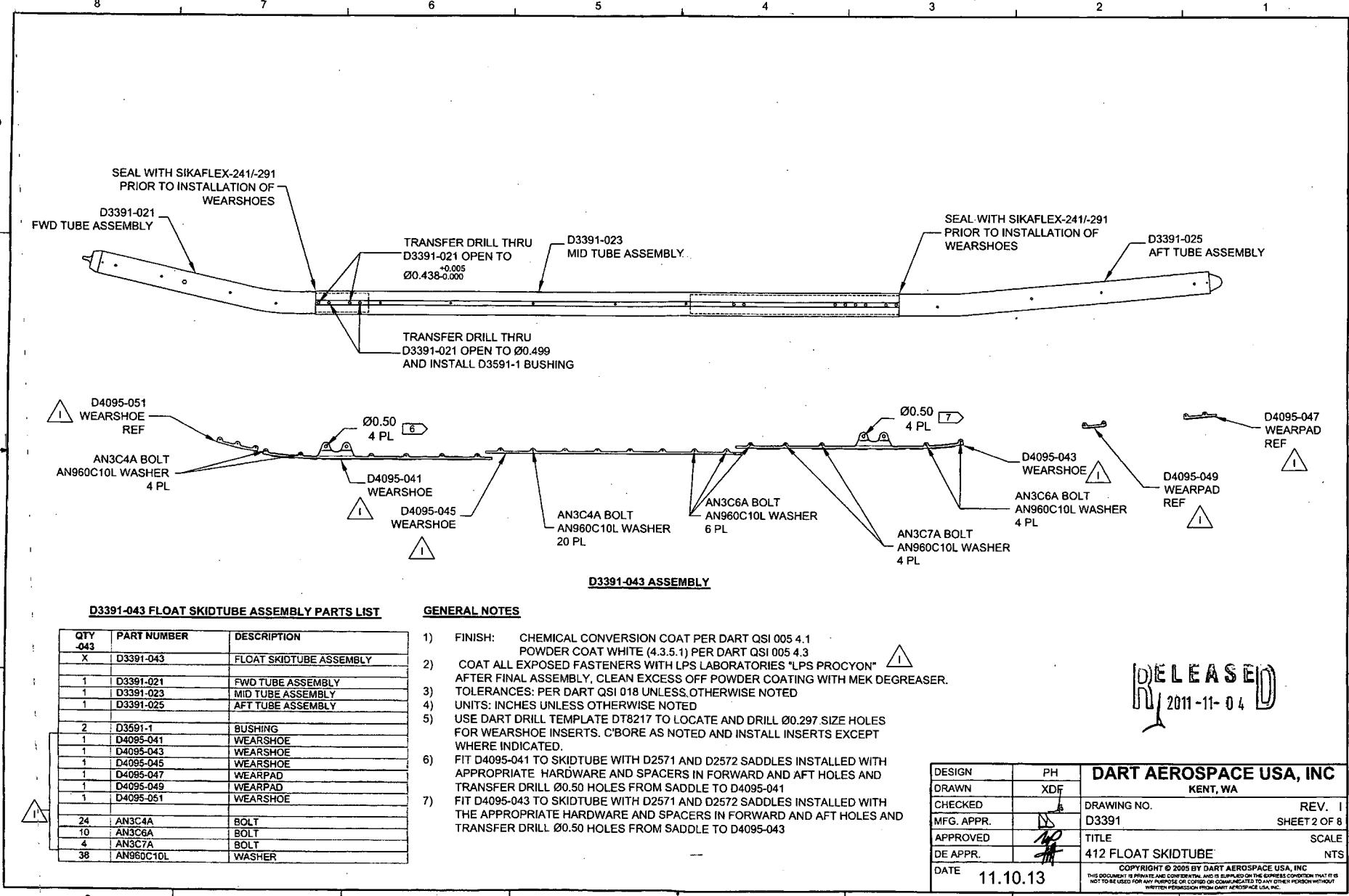
| | | | | | | | |
|-------------------|--|--|--|--|--|--|--|
| Work Order: _____ | DISPOSITION | AGAINST DEPARTMENT/PROCESS | | | | | |
| Part No. _____ | Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/> | Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> | Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> | Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> | Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> | | |
| NCR No. _____ | | | | | | | |

| Root Cause | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|---------------|------|------|-----|---|-------------------|--------------------|-------------|--------------|--------------|
| Design | | | | | | | | | |
| Doc/Data | | | | | | | | | |
| Equip/Tooling | | | | | | | | | |
| Handling/Pre | | | | | | | | | |
| Material | | | | | | | | | |
| Operator | | | | | | | | | |
| Offset/Setup | | | | | | | | | |
| Process | | | | | | | | | |
| Supplier | | | | | | | | | |
| Training | | | | | | | | | |
| Transport | | | | | | | | | |
| Unapproved | | | | | | | | | |

FAULT CATEGORY

| | | | | |
|--------------|---|---|--|---|
| Landing Gear | General | | | |
| | <input type="checkbox"/> Bending | <input type="checkbox"/> Bend | <input type="checkbox"/> Folio/Program | <input type="checkbox"/> Outside Dimensions |
| | <input type="checkbox"/> Centre Not Concentric | <input type="checkbox"/> BOM/Route | <input type="checkbox"/> Grain | <input type="checkbox"/> Pressure/Forced |
| | <input type="checkbox"/> Cracks | <input type="checkbox"/> Broken/Damage/Defect | <input type="checkbox"/> Hardware | <input type="checkbox"/> Set-up |
| | <input type="checkbox"/> Crimp/Kink/Ripple/Wave | <input type="checkbox"/> Burrs | <input type="checkbox"/> Inspection Incomplete/Unqualified | <input type="checkbox"/> Temperature/Cure |
| | <input type="checkbox"/> Cuffs | <input type="checkbox"/> Contamination | <input type="checkbox"/> Instructions Incomplete/Unclear | <input type="checkbox"/> Part Incorrect |
| | <input type="checkbox"/> Crushing | <input type="checkbox"/> Countersink | <input type="checkbox"/> Misaligned/off center | <input type="checkbox"/> Part Lost/Missing |
| | <input type="checkbox"/> Heat Treat | <input type="checkbox"/> Cut Too Short | <input type="checkbox"/> Mislabeled | <input type="checkbox"/> Part Moved |
| | <input type="checkbox"/> Inspection Strip in Tube | <input type="checkbox"/> Drawing | <input type="checkbox"/> Misread | <input type="checkbox"/> Positioned Wrong |
| | <input type="checkbox"/> Marks/Chatter | <input type="checkbox"/> Drill Holes | <input type="checkbox"/> Off-set | <input type="checkbox"/> Power Loss/Surge |
| | <input type="checkbox"/> Turning Sequence | <input type="checkbox"/> Finish | <input type="checkbox"/> Out of Calibration | <input type="checkbox"/> Other |
| | <input type="checkbox"/> Wave/Twist in Tube | <input type="checkbox"/> Fit/Function | <input type="checkbox"/> Out of Sequence | |
| | | | | |
| | | | | |
| | | | | |





8

7

6

5

4

3

2

1

D

D

C

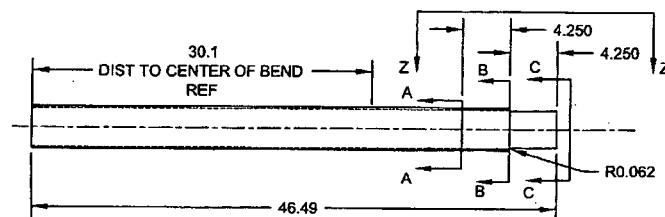
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B

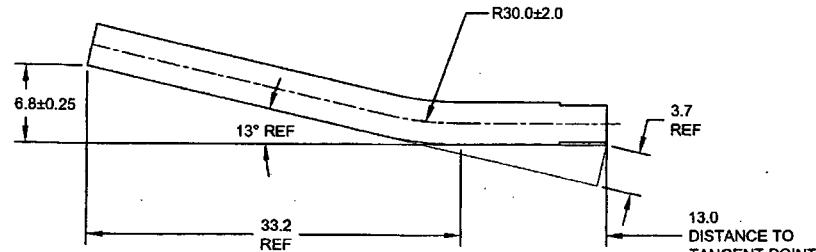
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A

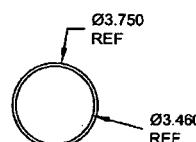
A



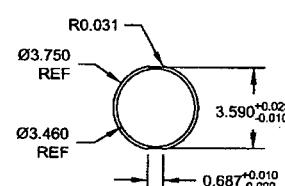
D3391-1 CUTTING DETAIL
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)



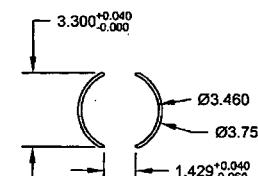
D3391-011/-021 BENDING DETAIL
(MAKE FROM D3391-1)



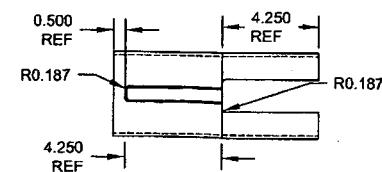
SECTION A-A
SCALE 2X



SECTION B-B
SCALE 2X



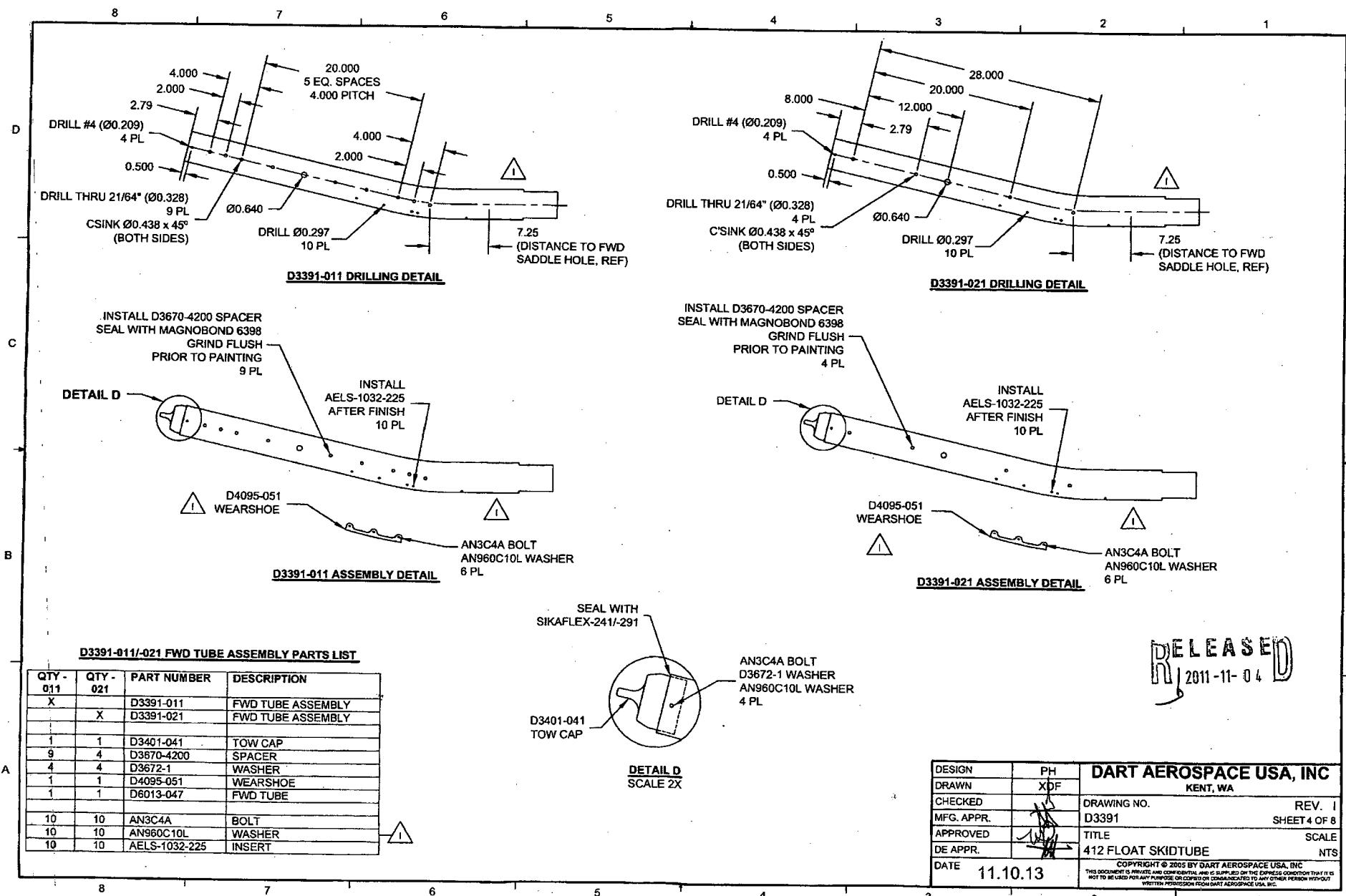
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SCALE 2X

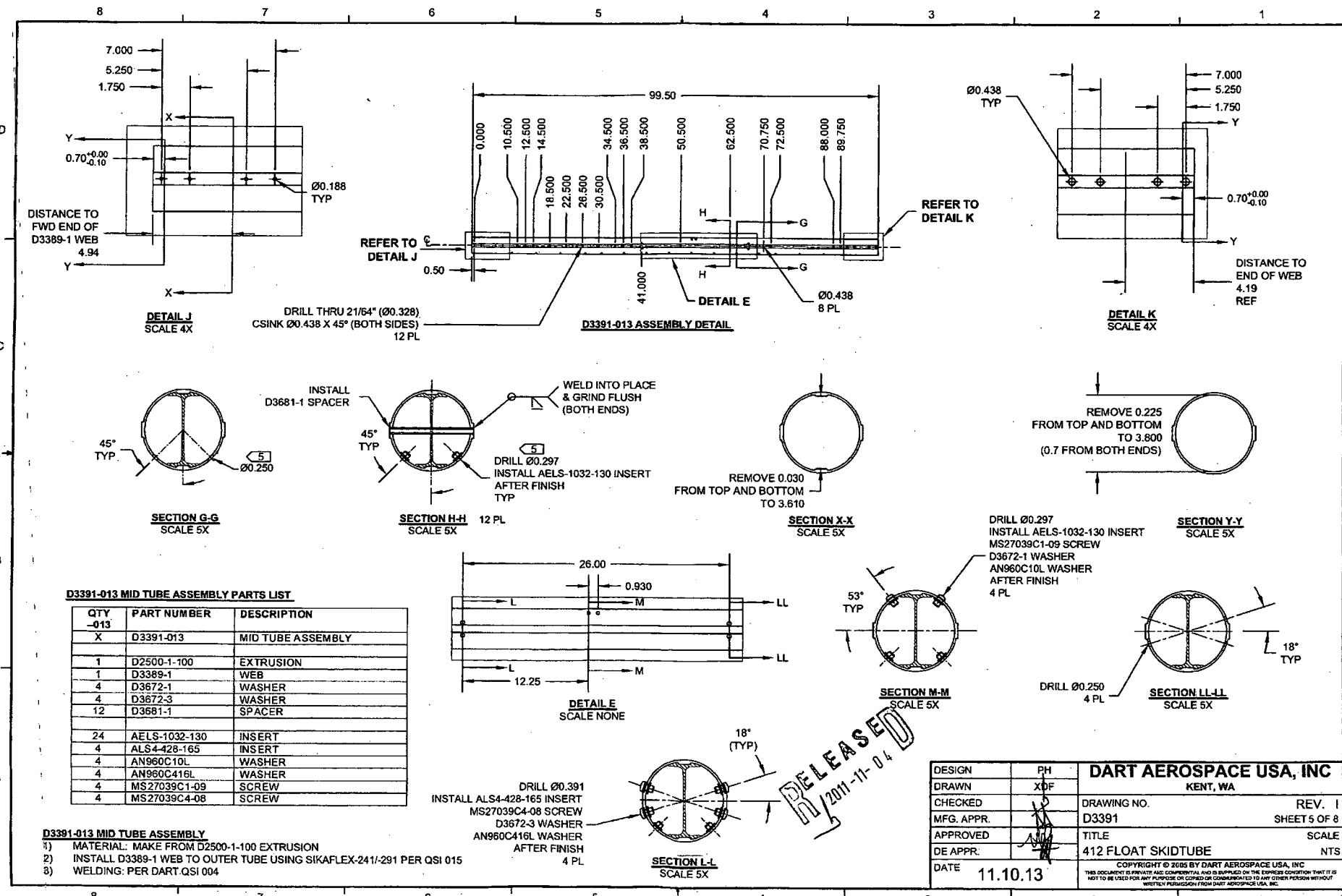


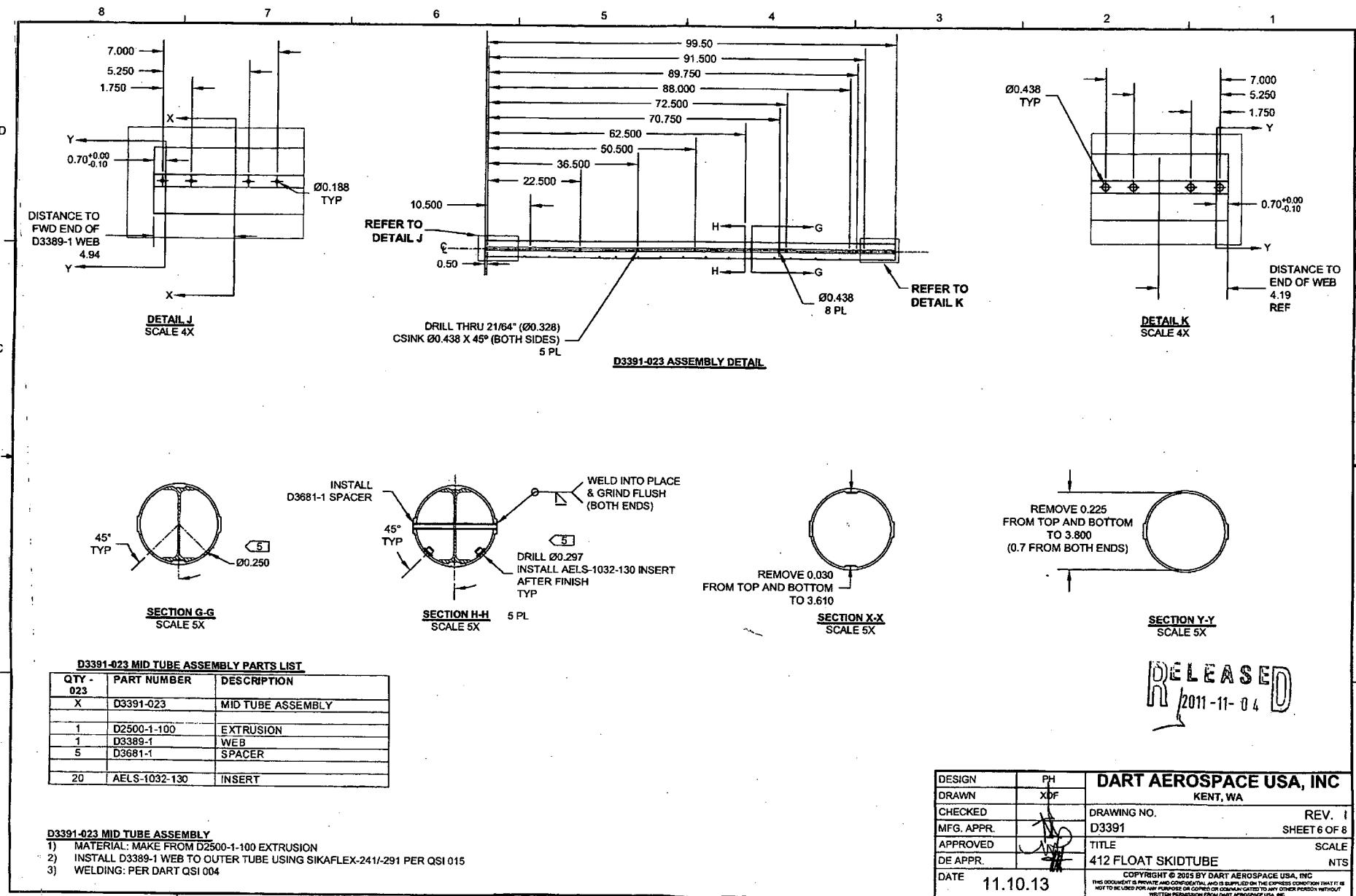
VIEW Z-Z
SCALE 2X

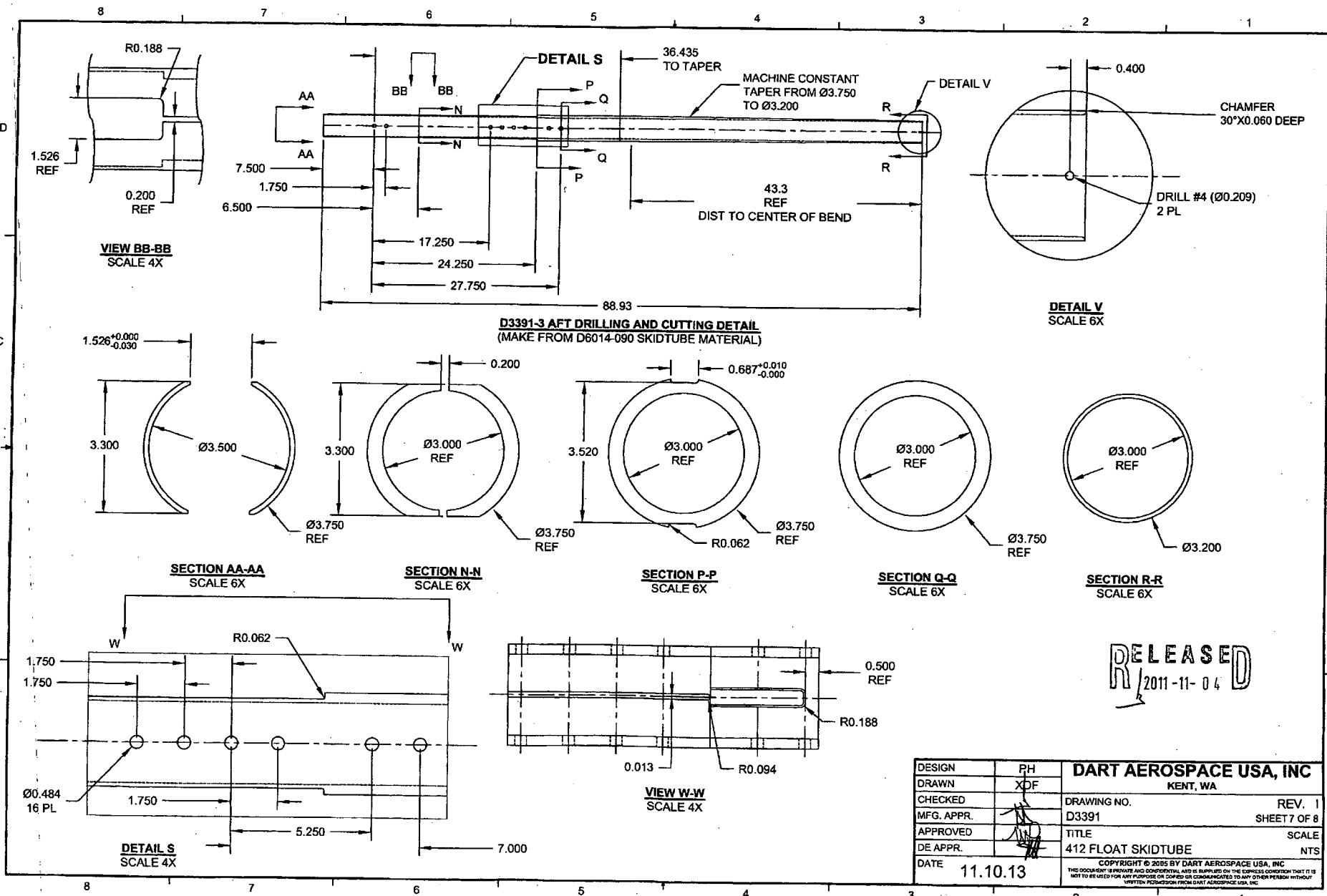
RELEASED
2011-11-04

| DESIGN | PH | DART AEROSPACE USA, INC KENT, WA |
|------------|----------|--|
| DRAWN | XDF | |
| CHECKED | | DRAWING NO. D3391 REV. 1 |
| MFG. APPR. | NO | SHEET 3 OF 8 |
| APPROVED | | TITLE 412 FLOAT SKIDTUBE |
| DE APPR. | | SCALE NTS |
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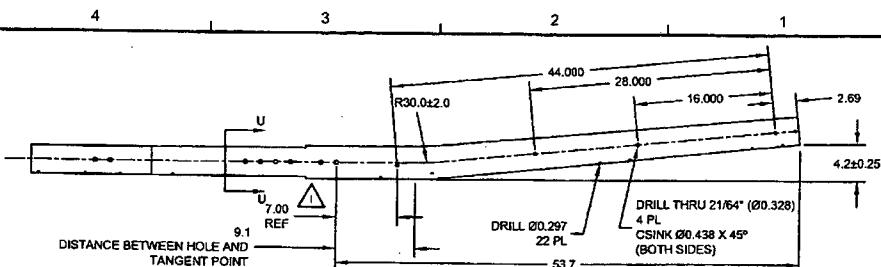
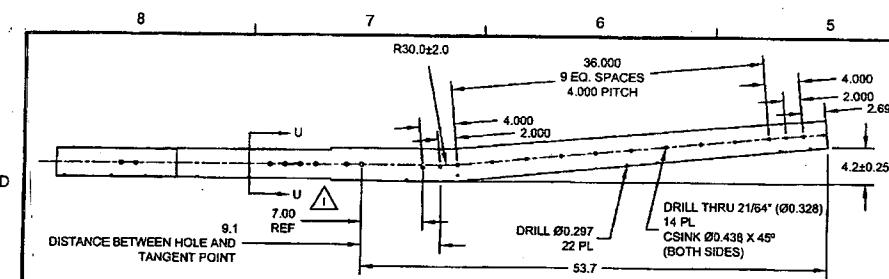






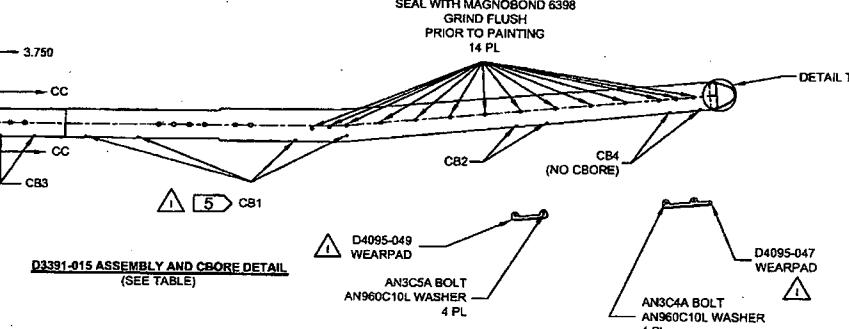
RELEASED
2011-11-04

| | | | | |
|------------|-----------|--|--------------|--|
| DESIGN | RH | DART AEROSPACE USA, INC | | |
| DRAWN | XDF | KENT, WA | | |
| CHECKED | <u> </u> | DRAWING NO. | REV. I | |
| MFG. APPR. | <u> </u> | D3391 | SHEET 7 OF 8 | |
| APPROVED | <u> </u> | TITLE | SCALE | |
| DE APPR. | <u> </u> | 412 FLOAT SKIDTUBE | NTS | |
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D3391-015 BENDING AND DRILLING DETAIL
(SEE CBORE DETAIL BELOW)

INSTALL D3670-4200 SPACER
SEAL WITH MAGNOBOND 6398
GRIND FLUSH
PRIOR TO PAINTING
14 PL

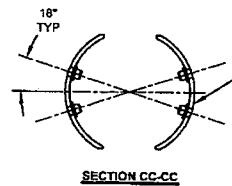
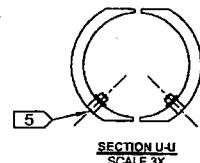


D3391-015/025 AFT TUBE ASSEMBLY PARTS LIST
(SEE TABLE)

| QTY - 015 | QTY - 025 | PART NUMBER | DESCRIPTION |
|-----------|-----------|-------------------|-------------|
| 1 X | D3391-015 | AFT TUBE ASSEMBLY | |
| 1 X | D3391-025 | AFT TUBE ASSEMBLY | |
| 14 | 1 | D2646 | AFT CAP |
| 14 | 4 | D3670-4200 | SPACER |
| 2 | 2 | D3672-1 | WASHER |
| 1 | 1 | D4095-049 | WEARPAD |
| 1 | 1 | D4095-047 | WEARPAD |
| 1 | 1 | D6014-090 | AFT TUBE |
| 14 | 14 | AELS-1032-130 | INSERT |
| 8 | 8 | AELS-1032-225 | INSERT |
| 4 | 4 | ALS4-428-165 | INSERT |
| 5 | 6 | AN3C4A | BOLT |
| 4 | 4 | AN3C5A | BOLT |
| 10 | 10 | AN960C10L | WASHER |

CBORE HOLES MARKED CB1-CB4 AS FOLLOWS AND
INSTALL AELS-1032-XXX AFTER FINISH AS NOTED

| HOLES MARKED | QTY D3391-015 | QTY D3391-025 | CBORE | P/N |
|--------------|---------------|---------------|----------------|---------------|
| CB1 | 8 | 8 | Ø0.430 X 0.170 | AELS-1032-225 |
| CB2 | 4 | 4 | Ø0.430 X 0.170 | AELS-1032-130 |
| CB3 | 6 | 6 | Ø0.430 X 0.040 | AELS-1032-130 |
| CB4 | 4 | 4 | NONE | AELS-1032-130 |



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2011-11-04

| DESIGN | PH | DART AEROSPACE USA, INC | |
|------------|-----------|---|--------------------|
| DRAWN | XDF | KENT, WA | |
| CHECKED | | DRAWING NO. | REV. 1 |
| MFG. APPR. | | D3391 | SHEET 8 OF 8 |
| APPROVED | <i>AM</i> | TITLE | 412 FLOAT SKIDTUBE |
| DE APPR. | <i>AM</i> | SCALE | NTS |
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| | | |
|--------------------------------|--------------|-------------|
| DART AEROSPACE LTD | Work Order: | 114509 |
| Description: Fwd tube Assembly | Part Number: | 123391-021 |
| Inspection Dwg: 3391 Rev: 1 | | Page 1 of 1 |

FIRST ARTICLE INSPECTION CHECKLIST

| | | | | | | |
|--------------|-----------------|-------------|-----------------|------|-----------------------|--|
| Measured by: | <i>bjp</i> | Audited by: | <i>D.P.</i> | DAS | Preliminary Approval: | |
| Date: | <i>14/03/22</i> | Date: | <i>14/03/23</i> | 9-89 | Date: | |

| Rev | Date | Change | Revised by | Approved |
|-----|----------|----------------------------|------------|----------|
| E | 10.04.14 | Added preliminary approval | KJ | |

10.04.15